

We claim:

1. A method for learning consumer behaviour, said method comprising the steps of:
 - 5 generating a hierarchical representation of relationships formed between a merchant and a plurality of parties, said representation based on referrals to said merchant of certain of said parties by other of said parties;
obtaining data relating to online transactions between said parties and said merchant;
 - 10 processing said data; and
predicting consumer behaviour of a target party based on selected data relating to at least one party on a lower level in said hierarchical representation than said target party, said selected data selected from said processed data.
- 15 2. The method of claim 1, wherein said representation comprises a tree structure of hierarchically arranged nodes corresponding to said parties.
3. The method of claim 2, wherein each party represented by a child node in said tree structure was referred to said merchant by the party represented by a respective
20 parent node in said tree structure.
4. The method of claim 3, comprising the further step of providing compensation to each ancestor of a party that performs a transaction with said merchant.
- 25 5. The method of claim 4, wherein said compensation comprises a share of the profit generated by said transaction.
6. The method of claim 1, wherein said selected data comprises data relating to one or more of the group consisting of:
 - 30 demographics of said at least one party;
acquaintances of said at least one party;

past transactions of said at least one party; and
clickstream patterns of said at least one party.

7. The method of claim 1, wherein said online transactions comprise redemption of
5 a sales promotional tool selected from the group of sales promotional tools consisting
of:
- discount coupons valid for all items offered by said merchant;
 - discount coupons valid for a selected group of items offered by said merchant;
 - discount coupons valid for a particular item offered by said merchant;
 - 10 gift certificates; and
 - freebies.
8. The method of claim 1, wherein said processing step comprises applying one or
more techniques selected from the group of techniques consisting of:
- 15 correlation analysis;
- collaborative filtering; and
- associative learning.
9. The method of claim 1, comprising one or more further steps selected from the
20 group of steps consisting of:
- determining pricing for items offered by said merchant;
 - performing market segmentation of said parties;
 - identifying preferences of said target party;
 - identifying sales promotional tools relevant to said target party;
 - 25 performing marketing targeted at an identified market segment;
 - performing marketing targeted at said target party; and
 - maximising the potential success of a promotional tool.
10. The method of claim 1, comprising the further step of incentivizing said parties
30 to form said relationships.

11. A method for learning consumer behaviour, said method comprising the steps of:
- offering a shared business opportunity with a merchant to selected parties;--
- enabling parent parties that have accepted said shared business opportunity to
- 5 offer a shared business opportunity to selected child parties;
- compensating each ancestor of one of said selected child parties in response to an online transaction between said child party and said merchant; and
- predicting consumer behaviour of a target party based on consumer behaviour of at least one descendant party of said target party.
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12. The method of claim 11, further comprising the step of incentivizing said parties to accept said shared business opportunity.
13. A system for learning consumer behaviour, comprising:
- 15 at least one communications interface for transmitting and receiving data;
- a memory unit for storing data and instructions to be performed by a processing unit; and
- a processing unit coupled to said at least one communications interface and said memory unit, said processing unit programmed to:
- 20 generate a hierarchical representation of relationships formed between a merchant and a plurality of parties, said representation indicative of referrals to said merchant of certain of said parties by other of said parties;
- obtain data relating to online transactions between said parties and said merchant;
- 25 process said data; and
- predict consumer behaviour of a target party based on selected data relating to at least one party on a lower level in said hierarchical representation than said target party, said selected data selected from said processed data.
- 30 14. The system of claim 13, wherein said representation comprises a tree structure of hierarchically arranged nodes corresponding to said parties.

15. The system of claim 14, wherein each party represented by a child node in said tree structure was referred to said merchant by the party represented by a respective parent node in said tree structure.

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16. The system of claim 15, wherein said processing unit is further programmed to determine a compensation for each ancestor of a party that performs a transaction with said merchant.

10 17. The system of claim 16, wherein said compensation comprises a share of the profit generated by said transaction.

18. The system of claim 13, wherein said selected data comprises data relating to one or more of the group consisting of:

15 demographics of said at least one party;
 acquaintances of said at least one party;
 past transactions of said at least one party; and
 clickstream patterns of said at least one party.

20 19. The system of claim 13, wherein said online transactions comprise redemption of a sales promotional tool selected from the group of sales promotional tools consisting of:

 discount coupons valid for all items offered by said merchant;
 discount coupons valid for a selected group of items offered by said merchant;
25 discount coupons valid for a particular item offered by said merchant;
 gift certificates; and
 freebies.

20. The system of claim 13, wherein said processing unit is programmed to process
30 said data by applying one of more techniques selected from the group of techniques consisting of:

correlation analysis;
collaborative filtering; and
associative learning.

- 5 21. The system of claim 13, wherein said processing unit is programmed to execute one or more tasks of the group of tasks consisting of:
- determine pricing for items offered by said merchant;
 perform market segmentation of said parties;
 identify preferences of said target party;
- 10 identify sales promotional tools relevant to said target party;
 perform marketing targeted at an identified market segment;
 perform marketing targeted at said target party; and
 maximise the potential success of a promotional tool.
- 15 22. The system of claim 13, wherein said processing unit is further programmed to offer an incentive to said parties to form said relationships.
23. A system for learning consumer behaviour, comprising:
- at least one communications interface for transmitting and receiving data;
- 20 a memory unit for storing data and instructions to be performed by a processing unit; and
- a processing unit coupled to said at least one communications interface and said memory unit, said processing unit programmed to:
- offer a shared business opportunity with a merchant to selected parties;
- 25 enable parent parties that have accepted said shared business opportunity to offer a shared business opportunity to selected child parties;
- compensate each ancestor of one of said selected child parties in response to an online transaction between said child party and said merchant; and
- predict consumer behaviour of a target party based on consumer behaviour of at
- 30 least one descendant party of said target party.

24. The system of claim 23, wherein said processing unit is further programmed to offer an incentive to said parties to accept said shared business opportunity.

25. A computer program product comprising a computer readable medium
5 comprising a computer program recorded therein for learning consumer behaviour, said computer program product comprising:

computer program code means for generating a hierarchical representation of relationships formed between a merchant and a plurality of parties, said representation based on referrals to said merchant of certain of said parties by other of said parties;

10 computer program code means for obtaining data relating to online transactions between said parties and said merchant;

computer program code means for processing said data; and

computer program code means for predicting consumer behaviour of a target party based on selected data relating to at least one party on a lower level in said
15 hierarchical representation than said target party, said selected data selected from said processed data.

26. The computer program product of claim 25, wherein said representation comprises a tree structure of hierarchically arranged nodes corresponding to said
20 parties.

27. The computer program product of claim 26, wherein each party represented by a child node in said tree structure was referred to said merchant by the party represented by a respective parent node in said tree structure.

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28. The computer program product of claim 27, further comprising computer program code means for determining compensation for each ancestor of a party that performs a transaction with said merchant.

30 29. The computer program product of claim 28, wherein said compensation comprises a share of the profit generated by said transaction.

30. The computer program product of claim 25, wherein said selected data comprises data relating to one or more of the group consisting of:
- demographics of said at least one party;
 - 5 acquaintances of said at least one party;
 - past transactions of said at least one party; and
 - clickstream patterns of said at least one party.
31. The computer program product of claim 25, wherein said online transactions
- 10 comprise redemption of a sales promotional tool selected from the group of sales promotional tools consisting of:
- discount coupons valid for all items offered by said merchant;
 - discount coupons valid for a selected group of items offered by said merchant;
 - discount coupons valid for a particular item offered by said merchant;
 - 15 gift certificates; and
 - freebies.
32. The computer program product of claim 25, further comprising one or more computer program code means selected from the group of computer program code
- 20 means consisting of:
- computer program code means for correlation analysis;
 - computer program code means for collaborative filtering; and
 - computer program code means for associative learning.
- 25 33. The computer program product of claim 25, further comprising one or more computer program code means selected from the group of computer program code means consisting of:
- computer program code means for determining pricing for items offered by said merchant;
 - 30 computer program code means for performing market segmentation of said parties;

computer program code means for identifying preferences of said target party;

computer program code means for identifying sales promotional tools relevant to said target party;

5 computer program code means for performing marketing targeted at an identified market segment;

computer program code means for performing marketing targeted at said target party; and

computer program code means for maximising the potential success of a promotional tool.

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34. The computer program product of claim 25, further comprising computer program code means for incentivizing said parties to form said relationships.

15 35. A computer program product comprising a computer readable medium comprising a computer program recorded therein for learning consumer behaviour, said computer program product comprising:

computer program code means for offering a shared business opportunity with a merchant to selected parties;

20 computer program code means for enabling parent parties that have accepted said shared business opportunity to offer a shared business opportunity to selected child parties;

computer program code means for compensating each ancestor of one of said selected child parties in response to an online transaction between said child party and said merchant; and

25 computer program code means for predicting consumer behaviour of a target party based on consumer behaviour of at least one descendant party of said target party.

30 36. The computer program product of claim 35, further comprising computer program code means for incentivizing said parties to accept said shared business opportunity.